From: Stan Van De Wetering

To: <u>Eric Blischke/R10/USEPA/US@EPA</u>; <u>Chris Thompson</u>; <u>Chip Humphrey/R10/USEPA/US@EPA</u>;

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Subject: Issues with termination of Oct ammocoete sampling

Date: 10/10/2006 11:08 AM

Eric:

I wanted to raise some concerns re ending this falls ammocoete sampling sooner than later. I only have a few minutes so I will try to be as brief and direct as possible. First I want to say I was very impressed with the sampling crew and all the effort they are putting forth. They are a top notch group. I spent five or so hours with them on Monday. As I suspected I was of no real help as far as finding the "secret" lamprey spots. But it was very helpful to see what Thai Do and crew were finding and where they were finding it.

As I have mentioned in past meetings I feel it is important to keep in mind habitat availability in relation to the temporal scale. What we have observed in not so large coastal rivers is as follows:

- 1) During the winter season your optimal velocity habitats are least available and found on the stream's margins. This season of course is the season that the river's overall morphology is set up based on various forces available during storm events.
- 2) During the spring season or moderate flow season, you normally experience the greatest diversity in habs and or velocities. This allows for more "optimal" velocity hab availability overall. This allows for more access to a greater range of substrate types during a period when more optimal microbial habitat is available as well (based on our limited research).
- 3) During the summer or low water season you have just the opposite setting. Most of your winter high velocity habitats are now "dead" water. Most of your spring optimal velocity habitats are not available. Those substrates that were associated with the storm event that set up the river's morphology are likely still there but the optimal spring velocities, feeding lanes and microbial production etc have shifted significantly in a negative direction. The optimal velocity habs are as limited as during the winter season.

So the point here is that it can be more difficult to find ammocoetes during the low flow period because the patchiness of habitat and in turn amms increases. Our coastal summer data show this very well. We have experienced sites where we move from a single plot in a sandy substrate that has a high level of microbial activity and several hundred ammocoetes per square meter to an adjacent plot (two feet over) with very limited microbial activity and very similar substrate and we see less than a few ammocoetes. Again this idea of patchiness and the ability to work that into a sampling design is difficult.

So my Monday with the crew suggested to me that we have some patchiness occurring in the harbor similar to other sites we have worked. This idea is supported by the results from Monday's work. Thai Do's crew took us back to a particular polygon that had very little sampling success. Thai chose to return to a single plot where a single (?) ammocoete had been found. We spent the next four hours working in that immediate plot "zone" if you will. As you know we found several other amms there and on a pretty consistent level - 2 or so per run. As we drifted out of that immediate plot zone we lost our ability to collect amms again. Again to me this supports this patchiness presence.

I think it would be of great use to the group to have Thai Do's crew spend some more time returning to the sites they have worked already and explore those specific plots where one or two amms were previously captured. Essentially repeat Monday's approach. If there is some consistency with catching amms in small patches then we can use those small patch data to better expand the data for the whole project. That is we could better expand fall rearing numbers per polygon.

There are a few other issues I want to make sure don't leave everyone's minds. First "we" seem to be assuming that when we catch only one amm in a sample plot that the result is an number that is abnormally low for the Willamette River as a whole - considering river mile zero to say 90. We have no leg to stand on here. We are not planning any upstream sampling to assist with a validation process. As well I am not aware of any general

validation attempts or plans for. I think we need to keep that in mind if we all have plans to later argue over "real" pop estimate numbers for the harbor. This could be accomplished without a huge burden being incurred. There is also the issue of what appears to be an improvement in sampling methods that Thai and crew developed. This involves moving the sampler to three local plots duriing the three shock period. This appears to be more productive and it makes sense relative to our experiences on the coast.

OK thats it for me today!

Thanks again to Thai Do and crew! And thanks to everyone else for allowing me to get out for a day. I really appreciate it.

Stan van

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---- Original Message ----
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> Chris, et al - I have been in contact with both Stan and Helle Anderson > regarding the lamprey toxicity testing. As you indicate, because Stan > will be in Portland, we will not be in a position to begin collection of > lamprey ammocoetes next week. My hope is that I will receive everyone's > comments today and get comments to the LWG by October 10th. We may then > be a position to collect the ammocoetes for the toxicity testing the > week of October 16th. I am very concerned about the short turnaround we > are dealing with here. However, Stan has informed me that once we get a > large rain event in the coast range, if will be very difficult to get > the ammocoetes we need for the toxicity testing this year.

My current solution is to focus our comments on the lamprey ammocoete collection and holding. Comments on the testing will be considered preliminary until we receive and review the QAPP (expected October 13th). If we are able to collect the ammocoetes the week of the 16th, toxicity testing would not begin until the week of November 6th. This gives us a little more time to resolve any issues associated with the toxicity testing. In addition, the toxicity testing to take place this fall is limited to the Round 1 rangefinding program. The definitive toxicity testing will take place in the spring. This also gives us perhaps a little more flexibility.

Eric

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Subject

RE: Lamprey Toxicity Testing

> Hi All,

Note that Eric Blischke's 2 Oct e-mail (below) states that collection of ammocoetes for the lab toxicity testing will begin on Oct 9, and that lab testing will begin 2-3 weeks after that. That time frame is no longer accurate. Comments on the draft FSP for this testing are not due until today (6 October), and a reasonable period of time is necessary for all parties to review and discuss everyone's comments, and revise the draft FSP if need be. Further, Stan Van de Wetering is helping collect ammocoetes in the ISA on 9 October as part of the ongoing ammocoete collection in the ISA. Also, the earliest that Windward is prepared to begin collecting ammocoetes for toxicity testing is 16 October - if Stan is available at that time (I do not know Stan's availability).

Cheers,

> Chris

> -----Original Message---> From: Blischke.Eric@epamail.epa.gov
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> Sent: Monday, October 02, 2006 5:00 PM
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> Subject: Lamprey Toxicity Testing

Just a quick point of information. The QAPP for the testing will be submitted by October 13, 2006. NAS was selected as the laboratory for the toxicity testing only last Friday which has delayed the production of the QAPP.

The field collection of the ammocoetes for phase 1 will begin on October 9th. The ammocoetes will be held according to procedures described in the FSP. Testing will not begin until 2 - 3 weeks after collection. Testing will be performed as described in the to be submitted QAPP.

Perhaps a little confusing. Let me know if you have any questions.

Thanks, Eric